



UNITED STATES DEPARTMENT OF COMMERCE

Patent and Trademark Office

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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
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09/238,859 01/28/99 SIMON

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MM91/0829

EXAMINER

VERBITSKY, G

ART UNIT

PAPER NUMBER

2859

DATE MAILED:

08/29/01

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

Office Action Summary

Application No.
09/238,859

Applicant(s)
Simony
Rothenstein et al.

Examiner
Gail Verbitsky

Art Unit
2859



-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☒ Responsive to communication(s) filed on Jul 16, 2001

2a) ☒ This action is FINAL. 2b) ☐ This action is non-final.

3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 35 C.D. 11; 453 O.G. 213.

Disposition of Claims

4) ☒ Claim(s) 2 and 4-9 is/are pending in the application

4a) Of the above, claim(s) _____ is/are withdrawn from consideration

5) ☐ Claim(s) _____ is/are allowed.

6) ☒ Claim(s) 2 and 4-9 is/are rejected.

7) ☐ Claim(s) _____ is/are objected to.

8) ☐ Claims _____ are subject to restriction and/or election requirements

Application Papers

9) ☐ The specification is objected to by the Examiner.

10) ☐ The drawing(s) filed on _____ is/are objected to by the Examiner.

11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved.

12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

13) ☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).

a) ☐ All b) ☐ Some* c) ☐ None of:

1. ☐ Certified copies of the priority documents have been received.

2. ☐ Certified copies of the priority documents have been received in Application No. _____

3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

*See the attached detailed Office action for a list of the certified copies not received.

14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

Attachment(s)

15) ☒ Notice of References Cited (PTO-892)

16) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

17) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s). _____

18) ☐ Interview Summary (PTO-413) Paper No(s). _____

19) ☐ Notice of Informal Patent Application (PTO-152)

20) ☐ Other: _____

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DETAILED ACTION

Claim Rejections - 35 USC § 112

1. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

- 6.0. 2. Claims 2-⁴₉ are finally rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. In this case:

Claim 2: It appears that "regulation to a constant value", as stated in line 9, is not described in the specification.

Claim 9: It appears that "regulation to a constant value" and driving the AOTF "by a constant frequency" is not described in the specification.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are

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such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 2, 4-9 are finally rejected under 35 U.S.C. 103(a) as being unpatentable over The Prior Art as stated by applicant in pages 1-2 of the specification [hereinafter Prior art] in view of Kemeny et al. [hereinafter Kemeny].

Prior Art discloses a laser scanning microscope with an AOTF, particularly the need to avoid temperature fluctuations when using the AOTF.

Prior art does not disclose a temperature gauge provided in the environment of the AOTF, a heater and a heater controller to control the AOTF temperature at a constant value.

Kemeny discloses in Figs. 6-8 a device to control an AOTF comprising an AOTF 102, a heater (one of cooling and heating) 164, a temperature sensor (gauge) 167, 170 connected to a heater controller (regulator) 166 and located within the vicinity of the AOTF. The heater is capable of maintaining the temperature of the AOTF within 1°C of the desired temperature which is above 35° (col. 8, lines 16-19), therefore, the heater controller, in a broad sense, regulates the temperature of the AOTF to a constant value. Output lines 190a and 190b are carrying a signal from the temperature sensors to a controller (driving unit) 300. Cooling of the AOTF is achieved simply by shutting the heater off (entire col. 8). Kemeny suggests to drive the AOTF at any desired frequency (col. 14, lines 22-23). Kemeny also suggests to drive the AOTF at a particular (in a broad sense, constant for at least some period of time) frequency to tune a particular wavelength band (col. 11, lines 58-59). The application of the particular (constant) frequency to

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the AOTF changes the direction of the propagation and polarization of the narrow wavelength band of the incident radiation, yielding two tuned radiation beams which diverge from each other and non-tuned radiation. The tuned wavelength can be used to analyze a sample (col. 2, lines 20-31).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to add a temperature sensor, a heater and a heater regulator, as taught by Kemeny, to the device with the AOTF disclosed by the Prior Art in order to be able to provide corrections for variations in the temperature of the AOTF (col. 13, lines 33-34), as already suggested by Kemeny.

It would have also been obvious to one of ordinary skill in the art at the time the invention was made to modify the device disclosed by the Prior Art so as to drive the AOTF with a particular (constant) frequency, as taught by Kemeny, because the application of the particular (constant) frequency to the AOTF changes the direction of the propagation and polarization of the narrow wavelength band of the incident radiation, yielding two tuned radiation beams which diverge from each other and non-tuned radiation, with the tuned radiation beams being then used to analyze a sample (col. 2, lines 20-31), as already suggested by Kemeny.

5. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any

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evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(f) or (g) prior art under 35 U.S.C. 103(a).

Response to Arguments

6. Applicant's arguments filed on July 16, 2001 have been fully considered but they are not persuasive.

A) Applicant states that Kemeny does not disclose a cooler: Applicant does not positively claim a cooler. Applicant claimes "one of cooling and heating". Kemeny discloses a heater which is "one of cooling and heating" means.

B) In response to applicant's argument that the Kemeny reference does not include certainn features of the applicant's invention, the limitations on which applicant relies (i.e., frequency stability and that the intensity of excitation light is kept constant and the temperature of the AOTF is adjusted to be kept constant) are not stated in the claims. It is the claims that define the claimed invention, and it is claims, not specifications that are anticipated or unpatentable.

See *In re Constant v. Advanced Micro-Devices, Inc.*, 7 USPQ2d 1064).

C) With regards to applicant's arguments with respect to 112 rejection stated in the previous Office action: Examiner has reviewed page 6, lines 13-15 and page 2, lines 15-24 of the specification again for a constant frequency and temperature value. Although, applicant states

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that the frequency can be adjusted, it appears that there is no suggestion in the above mentioned pages to keep the frequency or temperature value constant.

Conclusion

7. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The prior art cited in the PTO-892 and not mentioned above disclose related devices.

9. Any inquiry concerning this documentation should be directed to the Examiner Verbitsky whose telephone number is (703) 306-5473.

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Any inquiry of general nature or related to the status of this application should be directed to the Group Receptionist whose telephone number is (703) 308-0956.

GKV

August 17, 2001



Diego Gutierrez
Supervisory Patent Examiner
Technology Center 2800